UDC 595.782(477)

NEW RECORDS OF TORTRICID MOTHS (LEPIDOPTERA, TORTRICIDAE) FROM UKRAINE

V. V. Kavurka

Schmalhausen Institute of Zoology NAS of Ukraine, B. Chmielnicki str., 15, Kyiv, 01601 Ukraine E-mail: vitalij-kavurka@vandex.ru

Accepted 2 june 2010 Received 8 june 2010

New Records of Tortricid Moths (Lepidoptera, Tortricidae) from Ukraine. Kavurka V. V. — Five species of tortricid moths of the tribe Grapholitini are recorded from Ukraine for the first time: *Cydia oxytropidis* (Martini, 1912); *Pammene ignorata* Kuznetzov, 1968; *Dichrorampha teichiana* Šulcs et Kerppola, 1997; *Dichrorampha sylvicolana* Heinemann, 1863 and *Dichrorampha baixerasana* Trematerra, 1991. Most of these species were collected in north-eastern regions of Ukraine.

Key words: Tortricidae, Grapholitini, Ukraine, new records.

Новые находки листоверток (Lepidoptera, Tortricidae) в Украине. Кавурка В. В. — Впервые для фауны Украины указаны 5 видов листоверток, относящихся к трибе Grapholitini: *Cydia oxytropidis* (Martini, 1912), *Pammene ignorata* Kuznetzov, 1968, *Dichrorampha teichiana* Šulcs et Kerppola, 1997, *Dichrorampha sylvicolana* Heinemann, 1863, *Dichrorampha baixerasana* Trematerra, 1991. Большинство этих видов собрано в северо-восточных регионах Украины.

Ключевые слова: Tortricidae, Grapholitini, Украина, новые находки.

Introduction

Tortricid moths of the tribe Grapholitini represent a worldwide distributed phytophagous microlepidopteran complex trophically associated with numerous host-plants. Adults are usually moderately small (wing span varies from 7 mm to 20 mm). Moths are active at dusk and during the night. Larvae of Grapholitini feed in fruits, seeds, stems, roots and under bark of plants. Larvae of many species are actual or potential pests in natural and agricultural phytocenoses.

The tribe comprises over 600 species in ca. 40 genera occurring over the world; 230 species and 15 genera are distributed in the Palaearctic Region, 7 genera and 176 species are recorded from Europe, respectively (Razowski, 2003), 6 genera and 104 species are known from Ukraine. In this study, four species were collected in Ukraine for the first time. The first reliable record of *Cydia oxytropidis* (Martini, 1912) from Ukraine is made. A rare species *Pammene agnotana* Rebel, 1914, which was known from "Kam'yani Mohyly" Nature Reserve only, is recorded from Kharkiv Region.

Material and methods

Tortricid moths were collected at UV light traps (PHILIPS 250 W 225–235 UE 27) in 2008–2009 by the author in central and northeastern regions of Ukraine (Cherkasy, Chernihiv and Sumy Regions). Additional specimens from the collection of the State Museum of Natural History at V. N. Karazin National University of Kharkiv were examined.

Material is deposited in the insect collection at the Schmalhausen Institute of Zoology, National Academy of Sciences of Ukraine, Kyiv (SIZK) and State Museum of Natural History at V. N. Karazin National University of Kharkiv (MNUK).

Classification and morphological terminology of tortricid moths in this paper is given according to Razowski (2003). Definition collected material was spent by works Razowski (2003) and Kuznetzov (1978).

Results

Cydia oxytropidis (Martini, 1912)

Material examined. φ, Ukraine, Kharkiv Region, Zachepiliv District, near Orchik Village, River Orel' bank (49°12' N, 35°4' E), 17.06.2007 (leg. Guglya); σ, Ukraine, Odesa Region, Tarutine District, Framushuka Nova gully, 18.052009, light (leg. Zinenko) (MNUK).

Description. Imago. Wing span 13—17 mm. Head and thorax light ochreous-greyish. Palpus whitish. Forewing grey with brownish tinge, in distal third suffused pale ochreous; brown-grey lines located along veins in median area of wing; costal strigulae whitish, in basal part of wing grey; intervals brownish grey; refractive markings well developed; speculum with distinct anterior line and some inner spots. Cilia brownish grey. Hindwing brown-grey, darker in female than in male; cilia much paler and creamer.

Variation slight.

Male genitalia. Apex of tegumen with minute process; ventral edge of sacculus straight, terminal portion distinctly extending posteriorly, rounded; neck of valva broad,

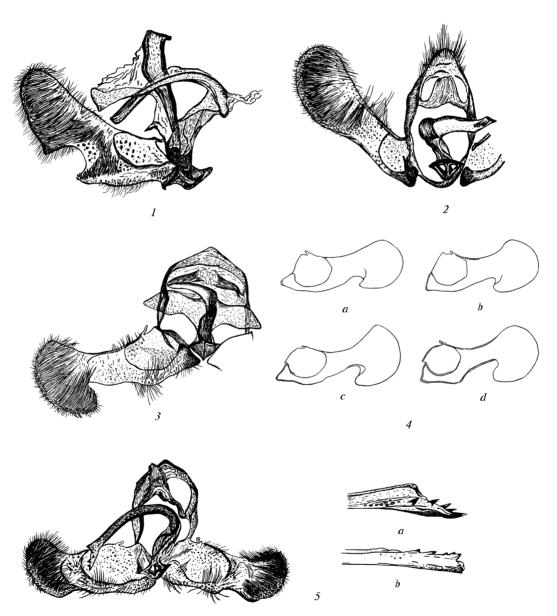


Fig. 1. Male genitalia: 1 - Cydia oxytropidis; 2 - Pammene agnotana; 3 - Dichrorampha teichiana; 4 -valves of species from section plumbanae (a - D. plumbana; b - D. sedatana; c - D. teichiana; d - D. uralensis); 5 - D. baixerasana (a -apex of aedeagus of D. baixerasana; b -apex of aedeagus of D. senectana).

Рис. 1. Гениталии самцов: 1- Cydia oxytropidis; 2- Pammene agnotana; 3- Dichrorampha teichiana; 4- вальвы видов секции plumbanae (a- D. plumbana; b- D. sedatana; c- D. teichiana; d- D. uralensis); 5- D. baixerasana (a- вершина эдеагуса D. baixerasana; b- вершина эдеагуса D. senectana).

incisure deep, rounded; ventral part of cucullus distinct, subtriangular; aedeagus long, slender, distinctly curved; cornuti having shape of a few very short spines (fig. 1, 1).

Female genitalia. Proximal part of sterigma broad, rounded anteriorly, postostial portion rather weakly sclerotized; ostium concave proximally; colliculum marked by weak sclerotization; two signum comparatively large (fig. 2, 1).

Early stages. No data.

Biology. Larva (July-August) feeds in seeds of *Oxytropis pilosa* (L.) DC. Imago flying from May to August (Danilevsky, Kuznetzov, 1968; Razowski, 2001, 2003).

Distribution. West and Central Palaearctic Region (West Europe to Ural Mts, then South Siberia, Iran, Tadzhikistan and Mongolia) (Razowski, 2001, 2003). Recorded from Western Ukraine (Razowski, 2003) without reference to any sources. This is the first reliable record of this species from Ukraine, supported by collection material.

Pammene ignorata Kuznetzov, 1968

Material examined. φ, Ukraine, Cherkasy Region, Kanivskij District, Kaniv Nature Reserve (49°44' N, 31°27' E), 20.05.2008, at light (leg. Kavurka); φ, same data, 22.05.2008, at light (leg. Kavurka) (SIZK).

Description. Imago. Wing span 10.5–12 mm. Palpus whitish, terminal segment with greyish pollination. Forehead light-greyish. Ground colour in form of white dorsal patch, sometimes slightly suffused and divided with grey line; costal strigulae small, whitish; intervals brown or blackish brown; other parts of ground colour strongly suffused brown or grey-brown with darker, often more black shades or spots; speculum concolorous with

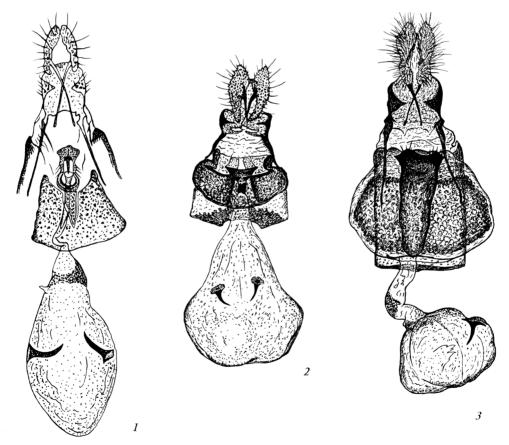


Fig. 2. Female genitals: 1 — Cydia oxytropidis; 2 — Pammene ignorata; 3 — Dichrorampha sylvicolana. Рис. 2. Гениталии самок: 1 — Cydia oxytropidis; 2 — Pammene ignorata; 3 — Dichrorampha sylvicolana.

weak brown inner spots. Markings brown to blackish brown. Basal blotch diffuse, rudimentary or atrophying, postbasal fascia usually distinct in dorsal half; median fascia concolorous, markings in terminal part of wing paler. Cilia concolorous with ground colour or suffusions. Hindwing brown, paler basally; cilia whitish or creamy, often partially suffused with brownish.

Variation. Paler and darker specimens with brown or blackish tinge of forewing pattern (Razowski, 2003).

Male genitalia. Not studied in this work and described here after Razowski (2003: pl. 45, fig. 465). Ventral edge of sacculus weakly convex; neck of valva slender; cucullus elongate, with distinct ventro-proximal convexity; small convexity of subterminal part of ventral edge of basal cavity marked with two spines; ventral prominence of aedeagus moderately large.

Female genitalia. Subgenital sternite with the semicircular bent leading edge and with deep cut at back edge. Subgenital sternite lateral incisions are deep and chinked. Postostial part of sterigma broad with slender lateral sclerites; anteostial sclerite short; cingulum small. Corpus bursae has two signum (fig. 2, 2).

Early stages not described.

Biology. Larva feeds on *Ulmus glabra* Huds. (Aarvik, 1992) and probably on *Tilia* L. Imago flying from May to the beginning of August (Danilevsky, Kuznetzov, 1968; Razowski, 2001, 2003).

Distribution. Northern part of Europe (Denmark, Norway (Aarvik, 1992), Sweden, Finland, Estonia, Latvia, Lithuania), Western Europe (British Is, Belgium, Netherlands (Van Nieukerken et al., 1993)) and North-Western European Russia; in Central Europe found in Switzerland, Austria, Czech Republic, Hungary (Szaboky, 2004), Poland (Kubasik, 2002). In Asia recorded from Transbaikalia and Russian Far East (Danilevsky, Kuznetzov, 1968; Razowski, 2001, 2003).

Pammene agnotana Rebel, 1914

Material examined. σ , Ukraine, Kharkiv Region, 8 km SW Izyum town, near Topol's'ke Village (49°7' N, 37°14' E), 2.05.2009, woodland belt, on *Crataegus* sp. (leg. Drogvalenko) (MNUK).

Description. Imago. Wing span 9.5–15 mm. Ground colour of forewing white (dorsal patch, area of speculum) suffused brownish grey; postbasal interfascia more grey especially in costal half; dorsal patch divided into two parts extending costally as a more grey interfascia; costal strigulae whitish divided brown-grey; inner spots of speculum black; refractive lines distinct. Markings black-brown, strigulae of ground colour similar. Cilia brownish. Hindwing brown; cilia much paler, often whitish.

Variation slight. There are paler and darker specimens; shade of forewing grey-brown to grey ferruginous (rarely). Dorsal patch occasionally subdivided or reduced. In some examples dorsal patch almost completely suffused with brown-grey, or slightly variable, divided into two or four parts (Razowski, 2001, 2003).

Male genitalia. Ventral edge of sacculus convex; no spined prominence of ventral edge of basal cavity; neck of valva rather slender, bristled except at basal cavity; ventral incision shallow; cucullus ovate; ventral prominence of aedeagus weak (fig. 1, 2).

Female genitalia. Female genitalia not studied in this work and described here after Danilevsky, Kuznetzov (1968: fig. 264) and Razowski (2003: pl. 89, fig. 470). Postostial part of sterigma rather long expanding at base laterally; cingulum short; two signum comparatively short. Their length much less than width of sterigma.

Early stages. Pupa described by Patocka (1998).

Biology. Larva feeds under bark of *Crataegus oxyacanthae* L. (Toll, 1947). Imago flying in April—May, in one generation yearly (Danilevsky, Kuznetzov, 1968; Razowski, 2001, 2003).

Distribution. European species known from northern part of Europe (Denmark, Sweden), West Europe (British Is, Netherlands), Central Europe (Switzerland, Germany, Austria, Czech Republic, Slovakia, Hungary, Poland) and Romania (Danilevsky, Kuznetzov, 1968; Razowski, 2001, 2003). The species was recorded from the Ukraine from «Kam'yani Mohyly» Nature Reserve (Bidzilya et al., 2001). It was recorded from Western Ukraine (Razowski, 2003) without further reference. Currently, the specimen captured in Kharkiv Region is the easternmost known record of this species.

Dichrorampha teichiana Šulcs & Kerppola, 1997

Material examined. σ , Ukraine, Sumy Region, Sumy District, near Vakalivshchyna Village (51°01' N, 34°55' E), 11.06.2009, at light (leg. Kavurka) (SIZK).

Description. Imago. Wing span 11–15 mm. Palpus and face brownish grey. Thorax and base of tegulae brownish-grey. Ground colour of forewing dark brown with sprinkling of black scales in the middle and subapical areas. Scattered yellowish irroration extending from base to apical area of wing. Scales, causing the irroration, dichromatic, basally dark brown and apically yellowish. Five pale yellow marks of costal strigulae in apical half of wing. Plumbeous lines very faint. Ocellus weak with three black streaks or dots. Mediodorsal blotch diffuse and weakly strigulate, constricted at median fold. Hindwing dark brown without yellow irroration, looking darker than forewing. Cilia line double, inner one stronger than outer one. Abdomen dark brown with brownish grey scales. Anal tuft brownish grey.

Variation unknown.

Male genitalia. Ventral edge of valva with prominent excision. Apex of sacculus forming almost right angle. Margins of valva tapering to cucullus. Ventral lobe of cucullus broader, rounded and ventral incision of valva abrupt and deeper. Outline of basal pit of valva forming right angle with costal margin of valva. Aedeagus straight, without terminal minute thorns (fig. 1, 3).

Female genitalia. Female genitalia not studied in this work are described after Jbulcs, Kerppola (1997) and Razowski (2003). Female genitalia as in *Dichrorampha sedatana* Busk, 1906 (Razowski, 2003: pl. 92, fig. 500), but colliculum weakly sclerotized and signum somewhat smaller. Lamella postvaginalis large.

Early stages not described.

Biology. The type material was collected in the dusk on wet river bank meadows. The immature stages of *D. teichiana* are still unknown but the moths were flying around *Achillea salicifolia* Besser (= *A. cartilaginea* Ledeb. ex Reichenb., *A. ptarmica* subsp. *cartilaginea* (Ledeb. ex Reichenb.)), which could be the larval host-plant (Razowski, 2003; Jbulcs, Kerppola, 1997).

Distribution. Earlier *D. teichiana* was known exclusively from Latvia (Daugavpils, Naujene, Piedruja) (Razowski, 2003; Šulcs, Kerppola, 1997). This is the first record of this species from Ukraine and beyond Latvia and at the same time the southernmost find.

Remarks. *D. teichiana* resembles externally and in genitalia morphology either *D. sedatana* or *Dichrorampha plumbana* (Scopoli, 1763). *D. sedatana* has a uniformly yellowish olive-green irroration covering the whole forewing; in *D. plumbana* the yellowish irroration in the basal part is lacking, but this appears in the middle and apical parts of the wings. *D. teichiana* shows a scattered yellowish irroration on the forewing. *D. teichiana* is more similar to *D. plumbana* in colouration but shows similarity to *D. sedatana* in genitalia shape.

The following genital characters distinguish *D. teichiana* from *D. sedatana*: in the male genitalia, 1) the ventral edge of cucullus of the valva is more rounded and the ventral margin of valva is more abrupt and deeper emarginated than in *D. sedatana*; 2) the dorsal single or double denticulation aedeagus is lacking in *D. sedatana*; 3) the outline of

the basal part of valva forms an acute angle instead of a right angle in *D. sedatana*; 4) in the female genitalia, the structure of antrum is similar to *D. sedatana* but, in *D. teichiana*, the sclerotization is weaker; 5) the signum of *D. teichiana* is smaller.

Razowski (2003) considers that *D. teichiana* is conspecific with *Dichrorampha uralensis* (Danilevsky, 1948). *D. sedatana*, *D. plumbana*, *D. uralensis* are very close species, which enter into the *plumbanae*-section (allocated by Danilevsky, Kuznetzov (1968)). In this section it is necessary to carry also *D. teichiana*. Species of this section difficultly differ by colouration and wing-pattern and are poorly differentiated by their genitalia structures. Differences of these species by the form their valves are shown in the figure 1, 4.

Dichrorampha sylvicolana Heinemann, 1863

Material examined. φ, Ukraine, Chernigiv Region, Novgorod-Sivers'kiy District, near Buda-Vorob'yivska Village (52°14′ N, 33°3′ E), 18.07.2009, at light (leg. Kavurka) (SIZK).

Description. Imago. Wing span 10–12 mm. In male costal fold of forewing to about middle. Ground colour creamy brownish or creamy greyish forming a diffuse dorsal patch, more greyish in posterior third of wing included area of speculum; costal strigulae creamy; intervals brownish; refractive markings developed. Basal area of wing brown somewhat darker dorso-posteriorly to form an indistinct subbasal fascia; median fascia weak or strongly reduced; cilia creamy brown. Distal half or third of wing more or less distinctly sprinkled and suffused orangeous or ochreous. Hindwing brown; cilia brownish creamy.

Variation. A minor variation in tinge and intensity of colouration; some brown areas of forewing often with diffuse darker strigulation. Ochreous suffusions occasionally ill-defined (Razowski, 2003).

Male genitalia. Male genitals were not studied by me. They have been described after Danilevsky, Kuznetzov (1968: fig. 91a) (as *Dichrorampha pseudoalpestrana* (Danilevsky, 1948)) and Razowski (2003: pl. 51, fig. 518). Ventral edge of sacculus rather straight, caudal angle distinct; neck of valva broad; incision deep; ventral lobe of cucullus large, elongate; aedeagus slender, long with latero-posterior curved lobe of left wall and subterminal comb of dents.

Female genitalia. Sclerite of colliculum broad in distal half, gently concave at ostium bursae, edge-shaped proximally. Signum single and comparatively large (fig. 2, 3).

Early stages. Body of larva whitish; head light brown (Razowski, 2003).

Biology. Larva (August—April) feeds in roots of *Ptarmica vulgaris* Blakw. ex DC; pupa in May in cocoon amongst the roots or on them. Imago flying in May–July (Danilevsky, Kuznetzov, 1968; Razowski, 2001, 2003).

Distribution. European species known from Denmark, Norway, Sweden, Finland, Estonia, British Is, the Netherlands, France, Switzerland, Germany, Austria, Czech Republic, Slovakia and Romania (Danilevsky, Kuznetzov, 1968; Razowski, 2001, 2003). Currently, the find in Ukraine is the easternmost known record of this species.

Dichrorampha baixerasana Trematerra, 1991

Material examined. σ , Ukraine, Sumy Region, Sumy District, near Vakalivshchyna Village (51°01' N, 34°55' E), 5.07.2000, light (leg. Govorun) (SIZK).

Description. Imago. Wing span 15–17 mm. Ground colour of forewing pale brownish grey suffused yellowish, delicately strigulated grey-brown; costal strigulae whitish; intervals brownish grey. Markings rudimentary. Cilia brownish grey. Hindwing brown; cilia creamy.

Variation inconspicuous (Razowski, 2003).

Male genitalia. Valva broad; caudal angle of sacculus small; neck short, broad; cucullus short with small ventral lobe; aedeagus long, with elongate ventral termination marked with variable number of thorns (fig. 1, 5).

Female genitalia. Male genitals not studied in this work, are described after Razowski (2003: pl. 94, fig. 527). Sclerite of colliculum very long, other characters similar to those in *Dichrorampha senectana* Guenŭe, 1845 (Razowski, 2003: pl. 94, fig. 526).

Early stages unknown.

Biology. Imago flying in July-August (Razowski, 2003). *D. baixerasana* prefers mountain grasslands in South Europe (Karisch, Stanescu, 2005).

Distribution. Earlier was considered exclusively as South European species. Occur in Italy — Southern Apennine Mountains: Rotonda (Potenza), Piano Pedarreto (type locality); Northern Italy, Alps Mountains: Valle d'Aosta and Piedmont; Central Italy, Apennine Mountains: Abruzzo and Molise; South Italy, Apennine Mountains: Basilicata; Croatia, Albania, Rumania (Karisch, Stanescu, 2005; Razowski, 2003). Currently, the find from Ukraine is the northernmost known record of this species.

Remarks. *D. baixerasana* belongs to the *sequanae* section. This group of species is characterized by broad neck of valva and broad distinctly convex caudal portion of cucullus. The species closely resembles *Dichrorampha pastoralisi* Razowski et Tokár, 2003 recently described from Croatia (Razowski, Tokár, 2003). In *D. pastoralisi* neck of valva is much shorter and ventral incision of valva is shallower than in *D. baixerasana*. It also differs from *D. senectana* and *D. baixerasana* in the presence of caudal prominence of sacculus and very long aedeagus provided with a thorn situated dorso-terminally. *D. baixerasana* is externally very similar to *D. pastoralisi* but with less dense strigulation of basal area of forewing (Razowski, Tokár, 2003).

D. baixerasana is also resembles D. senectana, but differs from it in its wingspan (15–17 mm, a little bit larger than D. senectana, which has a wingspan of 13–15 mm), the ground colour of wings (darker in D. baixerasana) and the colour of the costal strigulae (whitish in D. baixerasana, creamy in D. senectana). But striking differences can be encountered mostly in the morphology of both male and female genitalia. The male of D. baixerasana has a particular shape of valva, with a visible excavation of its ventral margin just before cucullus (this last one being well distinct, with an apex pointed toward tegumen), while in D. senectana Guenee, 1845, the ventral margin of valvae is relatively straight. The aedeagus of D. baixerasana Trematerra, 1991 has a striking elongated projection on its tip, with 4–5 teeth (fig. 1, 5 a) (contrary, aedeagus does not have an elongated projection and displays a serrated dentation along its upper margin in D. senectana (fig. 1, 5 b)). The aedeagus with an elongated projection can be found also in other species of the genus Dichrorampha Guenee, 1845 (e. g. D. harpeana Frey, 1870, D. heegerana (Duponchel, 1843), D. ligulana (Herrich-Schäffer, 1851), D. sequana (Hübner, 1796–1799), etc.) even if the teeth are absent in these species.

Discussion

Up to now, the list of tortricid moths of tribe Grapholitini in the fauna of Ukraine included 104 species; five species are added in this my study.

The finds of two species (*D. teichiana*, *D. baixerasana*) are most interesting among all the newly recorded species for Ukraine. Formerly, *D. teichiana* was known exclusively from Latvia (Šulcs, Kerppola, 1997). The find of this species in Ukraine is a first record of this species outside of Latvia and while is the southernmost. Taxonomic status of this species is not completely established and requires in additional studies. Earlier *D. baixerasana* was considered exclusively a South European species. Currently, its find in Ukraine moved the boundary of its distribution far to the North-East. Apparently this species has wider geographic range, which is not limited only to the countries of Southern Europe.

Aarvik L. Contribution to the knowledge of the Norwegian Lepidoptera IV. The Norwegian species of Pammene Hübner (Tortricidae) // Fauna norv. Ser. B. — 1992. — 39. — P. 55–61.

- Bidzilya A. V., Budashkin Yu. I., Zhakov A. V. et al. Fauna of lepidopterous insects (Lepidoptera) of «Kammenye Mogily» Nature Reserve and it taxonomic structure // Karadag. History, biology, archaeology. The collection of scientific papers devoted to the 85 anniversary of Karadagsky scientific station Simferopol: SONAT, 2001. P. 72–107. Russian: Бидзиля А. В., Будашкин Ю. И., Жаков А. В. и др. Фауна чешуекрылых (Lepidoptera) заповедника «Каменные Могилы» и ее таксономическая структура // Карадаг. История, биология, археология: Сборник научных трудов, посвящ. 85-летию Карадагской научной станции.
- Danilevsky A. S., Kuznetzov V. I. Tortricid moths Tortricidae. Tribe Laspeyresiini // Fauna USSR. Lepidopterous insects. Volume 5(1). Leningrad: Nauka, 1968. 636 р. Russian: Данилевский А. С., Кузнецов В. И. Листовертки Tortricidae. Триба плодожорки Laspeyresiini // Фауна СССР. Насекомые чешуекрылые. Т. V, вып. 1).
- Karisch T., Stänescu M. On the presence of Acleris boscanoides Razowski, 1959 and Dichrorampha baixerasana Trematerra, 1991 (Lepidoptera: Tortricidae) in Romania // Mus. Hist. Nat. «Gr. Antipa». — 2005. — 48. — P. 203–211.
- Kubasik W. Pammene ignorata V. I. Kuznetzov, 1968 (Lepidoptera: Tortricidae) a species new for the Polish fauna // Pol. Pismo Ent. 2002. 71 (4). P. 397.
- Kuznetzov V. I. Keys to the insects of the European part of the USSR. Vol. IV. Lepidopterous insects // 21.
 Family Tortricidae (Olethreutidae, Cochylidae) tortricid moths Part 1. Leningrad: Nauka, 1978. —
 P. 193-680. Russian: 21. Кузнецов В. И. Сем. Tortricidae (Olethreutidae, Cochylidae) листовертки // Определитель насекомых европейской части СССР. Т. 4. Чешуекрылые. Ч. 1.
- Patočka J. Die Puppen der mitteleuropäischen Wickler. Lepidoptera: Tertricoidea, Tortricidae // Nova Suppl. entomol. 12 Willey-VCH. Berlin, 1998. 286 p.
- Razowski J. Die Tortriciden (Lepidoptera, Tortricidae) Mitteleuropas. Bestimmung-Verbreitung-Flugstandort-Lebensweise der Raupen. — Bratislava: Slamka, 2001. — 320 S.
- Razowski J. Olethreutinae // Tortricidae (Lepidoptera) of Europe. Vol. 2. Bratislava : Slamka, 2003. 320 p.
- *Razowski J., Tokár Z.* Dichrorampha pastoralisi Razowski & Tok*á*r, sp. n., a new species from Southern Europe (Lepidoptera: Tortricidae: Olethreutinae) // SHILAP Revista de Lepidopterologна. 2003. 31 (123). Р. 221–223.
- *Šulcs I., Kerppola S.* A new Dichrorampha species from Latvia (Tortricidae: Olethreutinae) // Nota lepid. 1997. **20** (3/4). P. 299–304.
- Szaboky C. Molyfaunisztikai újdonságok VIII. (Lepidoptera: Coleophoridae, Elachistidae, Gelechiidae, Tortricidae) // Folia ent. hung. 2004. 65. S. 248—252.
- *Toll S.* Przyczynek do fauny motyli t. zw. drobnych Polski // Mater. Fizjogr. Kraju. 1947. **6**. S. 16—37. *Van Nieukerken E. J., Gielis C., Huisman K. J. et al.* Nieuwe en interessante Microlepidoptera uit Nederland (Lepidoptera) // Neder. Faun. Med. 1993. **5**. S. 47—62.